

REMARKS

Claims 1-36 are in the application.

Rejection under 35 U.S.C. §102 and 103

Claims 1, 4-9, 19, 24 and 26-29 were rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 4,932,266 to Bauer.

Claims 2, 3, 25, 10, 11-16, 18, 20-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,932,266 to Bauer in view of U.S. Patent No. 6,782,755 to Tai and in view of U.S. Patent No. 6,272,928 to Kurtz.

This rejection is respectfully traversed.

Bauer discloses a pressure sensor that uses a diaphragm 16 to seal a measuring element 17 away from the medium of which the pressure is to be measured (figure 1). In Bauer, the pressure sensitive resistor 33 (figure 3) is never in direct contact with the pressurized medium.

Each of the Independent claims in the present application recite that the pressure sensitive resistor is in direct contact with the pressurized medium.

The device of Bauer is not in direct contact with the pressurized medium and requires the use of diaphragm 16 in order to operate at all.

The present invention eliminates the need for a diaphragm. As recited on pages 11 and 12 of the present application:

“One of ordinary skill in the art of designing and using pressure sensors will realize many advantages from using the present invention. The elimination of the diaphragm of prior art sensors eliminates one of the major sources of sensor error and

failure and also results in a lower cost assembly.

An additional advantage of the present invention is improved accuracy. Since the pressure sensitive resistors are in direct contact with the pressure vessel, the sensor can react directly to changes in pressure. Sensors of the prior art have a diaphragm located between the sensor and the pressure vessel. The diaphragm reduces response time and accuracy of the sensor."

The dependent claims 2-11, 13-17, 19-23, 25-26, 28-34 and 36 depend from respective independent claims 1, 12, 18, 24, 27 and 35 and add additional patentable features and are allowable therewith. For example, claim 6 recites that the sensor does not have a diaphragm.

U.S. Patent No. 6,782,755 to Tai also discloses the use of a diaphragm 106 in order to operate. As seen in figure 1 and described in columns 2 and 3, the dimensions of the diaphragm 106 must be closely controlled in order to produce a device that can obtain accurate measurements.

U.S. Patent No. 6,272,928 to Kurtz also discloses the use of diaphragms 40, 40' in order to operate. As seen in figure 3 and described in column 3, lines 23-30, the diaphragm supports the resistors and separates them from the pressurized area.

Therefore, the disclosures of Bauer, Tai and Kurtz, by requiring the use of a diaphragm, teach away from the present invention that eliminates the need for a diaphragm.

Withdrawal of the 102 and 103 rejections is respectfully requested.

The present amendment and the accompanying discussion are believed to dispose of all issues in this case and to place this application in condition for allowance. Entry of the amendment and passing of this application to issue is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark P. Bourgeois', written over a horizontal line.


Mark P. Bourgeois (Reg. No. 37,782)

CERTIFICATE OF MAILING

I, Debra Miller, hereby certify that this Amendment and Response is being deposited with the United States Postal Service as first class mail on August 30, 2005 in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Debra Miller



Date

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